

ABSTRACT OF THE DISCLOSURE

An interrogator including a transmitter which transmits a first carrier wave so that a first transponder modulates the first carrier wave based on first information and returns the modulated first carrier wave as a first reflected wave, a receiver which receives the first reflected wave, a demodulator which demodulates the first reflected wave into a demodulated signal, an information obtaining device which obtains the first information from the demodulated signal, a first judging device which judges, before the transmitter transmits the first carrier wave, whether a second interrogator is transmitting a second carrier wave so that a second transponder modulates the second carrier wave based on second information and returns the modulated second carrier wave as a second reflected wave, a second judging device which judges, when the first judging device judges that the second interrogator is transmitting the second carrier wave, whether the receiver can receive, as a third reflected wave, a modulated second carrier wave that has been modulated by the first transponder based on the first information and returned therefrom, and a controller which controls, when the second judging device judges that the receiver can receive the third reflected wave returned from the first transponder, the transmitter not to transmit the first carrier wave, and additionally controls the receiver to receive the third reflected wave.